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the data associated with the portion(s) can be generated based on the second and fourth radiations.

The foregoing merely illustrates the principles of the present disclosure. Various modifications and alterations to the described embodiments will be apparent to those skilled in the art in view of the teachings herein. For example, more than one of the described exemplary arrangements, radiations and/or systems can be implemented to implement the exemplary embodiments of the present disclosure. Indeed, the arrangements, systems and methods according to the exemplary embodiments of the present invention can be used with and/or implement any OCT system, OFDI system, SD-OCT system or other imaging systems, and for example with those described in International Patent Application PCT/US2004/029148 filed Sep. 8, 2004 (which published as International Patent Publication No. WO 2005/047813 on May 26, 2005), U.S. patent application Ser. No. 11/266,779 filed Nov. 2, 2005 (which published as U.S. Patent Publication No. 2006/0093276 on May 4, 2006), U.S. patent application Ser. No. 10/861,179 filed Jun. 4, 2004, U.S. patent application Ser. No. 10/501,276 filed Jul. 9, 2004 (which published as U.S. Patent Publication No. 2005/0018201 on Jan. 27, 2005), U.S. patent application Ser. No. 11/445,990 filed Jun. 1, 2006, International Patent Application PCT/US2007/066017 filed Apr. 5, 2007, and U.S. patent application Ser. No. 11/502,330 filed Aug. 9, 2006, the disclosures of which are incorporated by reference herein in their entireties. It will thus be appreciated that those skilled in the art will be able to devise numerous systems, arrangements and methods which, although not explicitly shown or described herein, embody the principles of the present disclosure and are thus within the spirit and scope of the present disclosure. In addition, to the extent that the prior art knowledge has not been explicitly incorporated by reference herein above, it is explicitly being incorporated herein in its entirety. All publications referenced herein above are incorporated herein by reference in their entireties.

What is claimed is:

1. An apparatus for providing at least one electro-magnetic radiation to at least one sample, comprising:

a pre-fabricated optical mask;

a plurality of wave-guiding arrangements configured to (i) provide the at least one electro-magnetic radiation along different paths, and (ii) at a point of emission of each of the wave guiding arrangements, forward each of the at least one electro-magnetic radiation to the optical mask, which causes a phase of each of the at least one electro-magnetic radiations to have a predetermined value; and at least one lens arrangement which is configured to receive the at least one electro-magnetic radiation from the wave-guiding arrangements, and generate a focus-spot radiation which has an extended focal depth.

2. The apparatus according to claim 1, wherein the wave-guiding arrangements provide the at least one radiation in at least partially a circular pattern.

3. The apparatus according to claim 1, wherein the at least one lens arrangement is configured to cause the further focus-spot radiation to have an extended focal depth.

4. The apparatus according to claim 1, wherein the at least one lens arrangement is configured to cause the further focus-spot radiation to have a diameter that is smaller than a diffraction limited spot on or in the sample.

5. The apparatus according to claim 4, wherein the diffraction limited spot is a three-dimensional spot.

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6. The apparatus according to claim 1, wherein the at least one lens arrangement includes a grin lens.

7. The apparatus according to claim 1, wherein at least one of the wave-guiding arrangements is a single-mode wave-guide.

8. The apparatus according to claim 1, wherein at least one of the wave-guiding arrangements is composed of a photopolymer.

9. The apparatus according to claim 1, further comprising a further wave-guiding arrangement is configured to provide a further electro-magnetic radiation to the sample, wherein the at least one electro-magnetic radiation and the further electro-magnetic radiation are provided to at least partially overlapping portions of the sample.

10. The apparatus according to claim 1, further comprising a housing which at least partially encloses the wave-guiding arrangements.

11. The apparatus according to claim 10, further comprising a sheath enclosing the housing.

12. The apparatus according to claim 10, further comprising a control arrangement which is configured to at least one of rotate or translate the housing.

13. The apparatus according to claim 1, wherein the at least one lens arrangement includes at least one optical element which is at least one formed by or subjected to a photopolymer processing.

14. The apparatus according to claim 13, wherein the photopolymer processing includes irradiating a photopolymer so as to form the at least one optical element.

15. A probe for providing at least one electro-magnetic radiation to at least one sample, comprising:

a pre-fabricated optical mask;

a plurality of wave-guiding arrangements configured to (i) provide the at least one electro-magnetic radiation along different paths, and (ii) at a point of emission of each of the wave guiding arrangements, forward each of the at least one electro-magnetic radiations to the optical mask, which causes a phase of each of the at least one electro-magnetic radiations to have a predetermined value; and

at least one lens arrangement which is configured to receive the at least one electro-magnetic radiation from the wave-guiding arrangements, and generate a focus-spot radiation which has an extended focal depth.

16. A system for imaging at least one sample, comprising: a pre-fabricated optical mask;

a probe comprising a plurality of wave-guiding arrangements configured to (i) provide at least one electro-magnetic radiation to the at least one sample along different paths, and (ii) at a point of emission of each of the wave guiding arrangements, forward each of the at least one electro-magnetic radiations to the optical mask, which causes a phase of each of the at least one electro-magnetic radiations to have a predetermined value;

an interferometric arrangement provided in communication with the probe; and

at least one lens arrangement which is configured to receive the at least one electro-magnetic radiation from the wave-guiding arrangements, and generate a focus-spot radiation which has an extended focal depth.

17. The system according to claim 16, wherein the interferometric arrangement is part of the probe.

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